

GULF MIDDLE SCHOOL

POST REMEDIATION ASSESSMENT

Cape Coral, Florida
October 18, 2022
Project #021454

Post Remediation Assessment

Prepared By

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Reviewed By

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Prepared on October 18, 2022



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1.0 Background

On September 28, 2022, Hurricane Ian made landfall in Cayo Costa, FL with winds of 155 miles per hour, two miles per hour short of a Category 5 hurricane. Over the course of two days, Ian moved across Florida, exiting on September 30, 2022, but not before causing major flooding and tornado-like damage in areas across the state.

In response to Hurricane Ian, CTEH, LLC® (CTEH) was requested by Cotton Disaster Solutions (Cotton) to assess structures associated with Lee County School District awarded to them under RFQ No. 22-7431TA for potential water intrusion. On October 15, 2022, industrial hygienists from CTEH, LLC® (CTEH) and Universal Engineering Sciences (Universal) conducted post remediation verification (PRV) bioaerosol sampling and visually assessed the Gulf Middle School at 1809 SW 36th Terrace, Cape Coral, FL 33914. All samples were collected under the supervision of a licensed mold assessor from Universal. The assessments were requested by Cotton to assess the potential presence of airborne mold spores, and were conducted in both the impacted and non-impacted buildings.

Heating, ventilation, and air-conditioning (HVAC) for each room is provided by a HVAC system on the roof of the building.

At this time all rooms are sampled and there were no visible signs of mold in the rooms inspected; however, there was one room that contained spore counts associated with Aspergillus/Penicillium notably above background. This room is located at:

Hall 01-028U

The airborne bioaerosol sampling in all other rooms confirmed mold spores were consistent with what would be found outdoors or in a typical building environment.

2.0 Exposure Standards and Guidelines

Currently, there are no generally accepted occupational or public health standards for interpreting airborne microbiological sample results. Individual susceptibility varies with genetic predisposition, age, state of health, concurrent exposures, and previous sensitization. Due to these challenges, it is not possible to determine an indoor spore concentration that can guarantee all individuals will be asymptomatic. Guidelines published by the American Industrial Hygiene Association (AIHA) recommend comparing the indoor and outdoor air sampling results. In general, the types of fungi and their airborne concentrations found indoors should be similar (in non-problem buildings) to outdoor air. ^[1] Differences in the airborne levels or types of fungi may indicate the presence of moisture sources and resultant fungal growth.



3.0 Methods and Equipment

All collected samples were sent under chain-of-custody to EMSL Analytical, Inc., an AIHA-accredited laboratory.* All monitoring equipment was factory calibrated at the manufacturers recommended interval or prior to sampling.

Bioaerosol samples were collected indoors and outdoors using Zefon Air-O-Cell sampling cassettes attached to an SKC QuickTake 30 air sampling pump. Prior to sampling, the pump was calibrated to a flowrate of approximately 15 L/min, as specified by the sampling media manufacturer, using a Bios Defender 510 DryCal. Each sample was collected for a five-minute duration resulting in a sampled air volume of approximately 75 Liters. Samples were analyzed by microscopic examination using method EMSL 05-TP-003/ASTM D7391 to determine mold spore genus and spore concentration. This method does not differentiate between viable and non-viable spore types.

3.1 Visual Inspection

A visual inspection was conducted in accessible portions of the classrooms, school common areas, and above drop ceilings as necessary.

3.2 Psychrometric Assessment

A psychrometric assessment was conducted utilizing a Protimeter Hygromaster L (Model #: POL7750L) Hygrometer in both the impacted and non-impacted buildings.

4.0 Results

Laboratory reports for all samples are provided in **Appendix A**.

5.0 Conclusions and Recommendations

The inspections and tests were performed on October 15, 2022, by industrial hygienists from CTEH and Universal. The results of the post-remediation inspection revealed no visible mold growth but did reveal one room that had spore counts for Aspergillus/Penicillium notably above background. Cotton was notified of these results and advised to investigate the potential source of these detections further, and that isolation of the room and additional remediation actions prior to permitting re-occupancy to this school location may be warranted. The post-remediation inspection also revealed psychrometric (i.e., atmospheric) readings above 55 Grains of Moisture per Pound of Air (GPP), as well as a single Stachybotrys spore (Raw Count = 1; Count/M³ = 40) in the Room 01-034, but it was not present with Chaetomium or



^{*} AIHA Laboratory Accreditation Program (AIHA-LAP) – Environmental Microbiology; AIHA Environmental Microbiology Proficiency Analytical Testing Program (AIHA-EMPAT) Participant; CDC Elite – Legionella

[†] See laboratory reports in the appendix for exact flowrates and collected volumes.

levels of Aspergillus/Penicillium above background. However, these items may warrant further investigation / dehumidification techniques to inhibit microbial growth.

The results of the air testing in all other assessed rooms are considered normal and typical and do not indicate the presence of elevated airborne mold spores.

While some areas of the Gulf Middle School may be fit for re-occupancy at this time, the presence of Aspergillus/Penicillium notably above background may warrant a more thorough investigation, and it is recommended that, at a minimum, the room that contained elevated spore counts is retested following further investigation and remediation activities prior to removing occupancy restrictions.

6.0 References

[1] (AIHA), American Industrial Hygiene Association. *Facts About Mold*. Edited by American Industrial Hygiene Association (AIHA). Falls Church, Virginia: AIHA, 2011.



Appendix A

Laboratory Reports



5700 Memorial Highway, Suite 122 Tampa, FL 33615

Tel/Fax: (813) 280-8752 / (813) 280-8753 http://www.EMSL.com / tampalab@emsl.com EMSL Order: 932205772 Customer ID: CTEH99

Customer PO: Project ID:

Attention: Noah Ambos

CTEH Center for Toxicology & Env. Health

5120 North Shore Drive North Little Rock, AR 72118 Phone: (501) 454-1622 Fax: (501) 614-2835

Collected Date: 10/15/2022

Received Date: 10/16/2022 06:00 AM

Analyzed Date: 10/16/2022

Project: 021453

Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		32205772-0001 MS1015MS001 75 18C			932205772-0002 GMS1015MS002 75 13B		G	32205772-0003 MS1015MS003 75 Hall 01-013A	
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	- Raw Count	-	70 OI TOTAL	- Raw Count		78 OI 10tai	- Taw Count		70 OI TOTAL
Ascospores	_	_	-	_	_	_	2	90	36
Aspergillus/Penicillium	3	100	100	_	_	-	1	40	16
Basidiospores	-	-	-	-	-	_	2	90	36
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	2*	30*	12
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Corynespora	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Pyricularia	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Total Fungi	3	100	100	-	None Detect	-	7	250	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Gerald lannuzzi, Laboratory Manager or other Approved Signatory

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Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L):		32205772-0004 MS1015MS004 75			32205772-0005 MS1015MS005 75			32205772-0006 MS1015MS006 75	
Sample Location:		10			108			Hall-Media	
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1*	10*	11.1	-	-	-	2	90	69.2
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	1	40	50	1	40	30.8
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	44.4	1	40	50	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Cercospora++	1	40	44.4	-	-	-	-	-	-
Corynespora	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Pyricularia	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Total Fungi	3	90	100	2	80	100	3	130	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44		-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

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Lab Sample Number: Client Sample ID: Volume (L):	9	32205772-0007 MS1015MS007 75		9:	32205772-0015 MS1015MS015 75		9:	32205772-0016 MS1015MS016 75	
Sample Location:		Teach Lng			01-026			01-006	
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	- '	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	4	200	83.3	-	-	-
Basidiospores	2	90	100	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	1	40	16.7	1	40	100
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Corynespora	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Pyricularia	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Total Fungi	2	90	100	5	240	100	1	40	100
Hyphal Fragment	-	-	-	-	-	-	1	40	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

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Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L):	9	32205772-0017 MS1015MS017 75		9	32205772-0018 MS1015MS018 75		9:	32205772-0019 MS1015MS019 75	
Sample Location:		01-001M			Recep/Office			01-024	
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	3	100	15.6	3	100	8.3	1	40	16
Aspergillus/Penicillium	5	200	31.3	5	200	16.5	5	200	80
Basidiospores	4	200	31.3	11	490	40.5	1*	10*	4
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	90	14.1	7	300	24.8	-	-	-
Curvularia	1	40	6.3	1	40	3.3	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	1	40	3.3	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Corynespora	-	-	-	-	-	-	-	-	-
Nigrospora	1*	10*	1.6	-	-	-	-	-	-
Pyricularia	-	-	-	1	40	3.3	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Total Fungi	16	640	100	29	1210	100	7	250	100
Hyphal Fragment	1	40	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

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Lab Sample Number: Client Sample ID: Volume (L):		32205772-0020 MS1015MS020 75			32205772-0024 MS1015BG001 75			32205772-0025 MS1015BG002 75	
Sample Location:		01-034			Outdoors			Outdoors	
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	13	570	9	3	100	1.8
Aspergillus/Penicillium	-	-	-	52	2300	36.2	14	620	10.9
Basidiospores	-	-	-	9	400	6.3	10	440	7.7
Bipolaris++	-	-	-	-	-	-	1	40	0.7
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	60	2700	42.5	92	4100	72.2
Curvularia	-	-	-	5	200	3.1	3	100	1.8
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	2	90	1.6
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	3	100	1.6	1	40	0.7
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	2	90	1.6
Corynespora	-	-	-	1	40	0.6	1*	10*	0.2
Nigrospora	-	-	-	1	40	0.6	1*	10*	0.2
Pyricularia	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	1	40	0.7
Total Fungi	-	-	-	144	6350	100	131	5680	100
Hyphal Fragment	-	-	-	1*	10*	-	1	40	-
Insect Fragment	-	-	-	1*	10*	-	-	-	-
Pollen	-	-	-	-	-	-	1	40	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	-	-	-	1	-	-	1	-

932205772-0020 - Not Submitted

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Gerald lannuzzi, Laboratory Manager or other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Tampa, FL A2LA Accredited — Certificate #2845.28



5700 Memorial Highway, Suite 122 Tampa, FL 33615

Tel/Fax: (813) 280-8752 / (813) 280-8753 http://www.EMSL.com / tampalab@emsl.com **EMSL Order:** 932205772 **Customer ID:** CTEH99

Customer PO: Project ID:

Attention: Noah Ambos

CTEH Center for Toxicology & Env. Health

5120 North Shore Drive North Little Rock, AR 72118 Fax: (501) 614-2835

Collected Date: 10/15/2022

Received Date: 10/16/2022 06:00 AM

Phone: (501) 454-1622

Analyzed Date: 10/16/2022

Project: 021453

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		32205772-0026 MS1015FB001 NA							
Spore Types	Raw Count	Count/M³	% of Total	-	-	-	-	-	-
Alternaria (Ulocladium)	-	-	-		-		-	-	
Ascospores	-	-	-			-	-		
Aspergillus/Penicillium	-	-	-			-	-		
Basidiospores	-	-	-			-	-		
Bipolaris++	-	-	-			-	-		
Chaetomium++	-	-	-			-	-		
Cladosporium	-	-	-			-	-		
Curvularia	-	-	-			-	-		
Epicoccum	-	-	-			-	-		
Fusarium++	-	-	-			-	-		
Ganoderma	-	-	-			-	-		
Myxomycetes++	-	-	-			-	-		
Pithomyces++	-	-	-			-	-		
Rust	-	-	-			-	-		
Scopulariopsis/Microascus	-	-	-			-	-		
Stachybotrys/Memnoniella	-	-	-			-	-		
Cercospora++	-	-	-			-	-		
Corynespora	-	-	-			-	-		
Nigrospora	-	-	-			-	-		
Pyricularia	-	-	-			-	-		
Spegazzinia	-	-	-			-	-		
Total Fungi	-	No Trace	-			-	-		
Hyphal Fragment	-	-	-			-	-		
Insect Fragment	-	-	-			-	-		
Pollen	-	-	-		-		-		
Analyt. Sensitivity 600x	-	0	-			-	-		
Analyt. Sensitivity 300x	-	0*	-			-	-		
Skin Fragments (1-4)	-	-	-			-	-		
Fibrous Particulate (1-4)	-	-	-			-	-		
Background (1-5)	-	-	-			-	-		

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Gerald lannuzzi, Laboratory Manager or other Approved Signatory

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Attention: Noah Ambos

CTEH Center for Toxicology & Env. Health

5120 North Shore Drive North Little Rock, AR 72118 EMSL Order: 932205772 Customer ID: CTEH99

Customer PO: Project ID:

Phone: (501) 801-8500

(501) 614-2835 **Collected Date:** 10/15/2022 **Received Date:** 10/16/2022 **Analyzed Date:** 10/16/2022

Fax:

Project: 021453

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		932205772-0008 GMS1015MS008 75 Rear Café		932205772-0009 GMS1015MS009 75 Front Café			RO-SOP-201, ASTM D7391) 932205772-0010 GMS1015MS010 75 Band		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	· -
Ascospores	2	90	12.2	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	2	90	52.9	1	40	22.2
Basidiospores	4	200	27	1	40	23.5	1	40	22.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	8	400	54.1	1	40	23.5	2	90	50
Curvularia	1*	10*	1.4	-	-	-	1*	10*	5.6
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	3*	40*	5.4	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Total Fungi	18	740	100	4	170	100	5	180	100
Hyphal Fragment	1	40	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Moss/Fern Spores	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	_	1	-	_	1	_	_	1	_

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific

No discernable field blank was submitted with this group of samples.

Gerald Iannuzzi, Laboratory Manager or other Approved Signatory

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Attention: Noah Ambos

CTEH Center for Toxicology & Env. Health

5120 North Shore Drive North Little Rock, AR 72118 EMSL Order: 932205772 Customer ID: CTEH99

Customer PO: Project ID:

Phone: (501) 801-8500

Fax: (501) 614-2835

Collected Date: 10/15/2022 **Received Date:** 10/16/2022 **Analyzed Date:** 10/16/2022

Project: 021453

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		32205772-0011 iMS1015MS011 75 Cust			932205772-0012 GMS1015MS012 75 O1-028U			932205772-0013 GMS1015MS013 75 Hall 01-028U		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	
Alternaria (Ulocladium)	- '	-	<u> </u>	-	-	-	-	-	-	
Ascospores	1	40	4.8	-	-	-	5	200	1.3	
Aspergillus/Penicillium	8	400	47.6	1	40	100	336	14800	97.4	
Basidiospores	3	100	11.9	-	-	-	-	-	-	
Bipolaris++	-	-	-	-	-	-	1*	10*	0.1	
Chaetomium++	-	-	-	-	-	-	-	-	-	
Cladosporium	7	300	35.7	-	-	-	3	100	0.7	
Curvularia	-	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	-	
Fusarium++	-	-	-	-	-	-	-	-	-	
Ganoderma	-	-	-	-	-	-	-	-	-	
Myxomycetes++	-	-	-	-	-	-	2	90	0.6	
Pithomyces++	-	-	-	-	-	-	-	-	-	
Rust	-	-	-	-	-	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	
Zygomycetes	-	-	-	-	-	-	-	-	-	
Cercospora++	-	-	-	-	-	-	-	-	-	
Nigrospora	-	-	-	-	-	-	-	-	-	
Total Fungi	19	840	100	1	40	100	347	15200	100	
Hyphal Fragment	-	-	-	-	-	-	-	-	-	
Insect Fragment	-	-	-	1	40	-	-	-	-	
Pollen	-	-	-	-	-	-	-	-	-	
Moss/Fern Spores	-	-	-	-	-	-	1	40	-	
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-	
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-	
Background (1-5)	-	1	-	_	1	_	_	1	_	

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Ihm

Gerald Iannuzzi, Laboratory Manager or other Approved Signatory

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5120 North Shore Drive North Little Rock, AR 72118 **EMSL Order:** 932205772 Customer ID: CTEH99

Customer PO: Project ID:

Phone: (501) 801-8500

(501) 614-2835 **Collected Date:** 10/15/2022 **Received Date:** 10/16/2022 **Analyzed Date:** 10/16/2022

Fax:

Project: 021453

Test Report: Aller	genco-D(™) Ana	alysis of Fungal	Spores & Part	ticulates by Opti	cal Microscopy	(Methods MIC	RO-SOP-201, A	STM D7391)	
Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		32205772-0014 GMS1015MS014 75 27			32205772-0021 GMS1015MS022 75 01-034		932205772-0022 GMS1015MS023 75 01-038		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1	40	5.7	6	300	10.9	2	90	10.1
Aspergillus/Penicillium	12	530	75.7	13	570	20.7	11	490	55.1
Basidiospores	2	90	12.9	26	1100	40	5	200	22.5
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	5.7	14	620	22.5	3	100	11.2
Curvularia	-	-	-	2*	30*	1.1	1*	10*	1.1
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	1	40	1.5	-	-	-
Stachybotrys/Memnoniella	-	-	-	1	40	1.5	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	1	40	1.5	-	-	-
Nigrospora	-	-	-	1*	10*	0.4	-	-	-
Total Fungi	16	700	100	65	2750	100	22	890	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Moss/Fern Spores	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific

No discernable field blank was submitted with this group of samples.

Gerald Iannuzzi, Laboratory Manager or other Approved Signatory

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 10/16/2022

 Analyzed Date:
 10/16/2022

Fax:

Project: 021453

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:		32205772-0023 MS1015MS024 75 01-045							
Spore Types	Raw Count	Count/m³	% of Total	-	-	-	-	-	
Alternaria (Ulocladium)	-	-	-	-		-	-	-	
Ascospores	-	-	-			-			
Aspergillus/Penicillium	30	1300	60.5			-			
Basidiospores	9	400	18.6			-			
Bipolaris++	-	-	-			-			
Chaetomium++	-	-	-			-			
Cladosporium	8	400	18.6			-			
Curvularia	1	40	1.9			-			
Epicoccum	-	-	-			-			
Fusarium++	-	-	-			-			
Ganoderma	1*	10*	0.5			-			
Myxomycetes++	-	-	-			-			
Pithomyces++	-	-	-			-			
Rust	-	-	-			-			
Scopulariopsis/Microascus	-	-	-			-			
Stachybotrys/Memnoniella	-	-	-			-			
Unidentifiable Spores	-	-	-			-			
Zygomycetes	-	-	-			-			
Cercospora++	-	-	-			-			
Nigrospora	-	-	-			-			
Total Fungi	49	2150	100			-			
Hyphal Fragment	-	-	-			-			
Insect Fragment	-	-	-			-			
Pollen	-	-	-			-			
Moss/Fern Spores	-	-	-	-	-	-	-	-	
Analyt. Sensitivity 600x	-	44	-	-	-	-	-	-	
Analyt. Sensitivity 300x	-	13*	-						
Skin Fragments (1-4)	-	2	-			-			
Fibrous Particulate (1-4)	-	1	-						
Background (1-5)	_	3	_			_			

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Ilmo

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